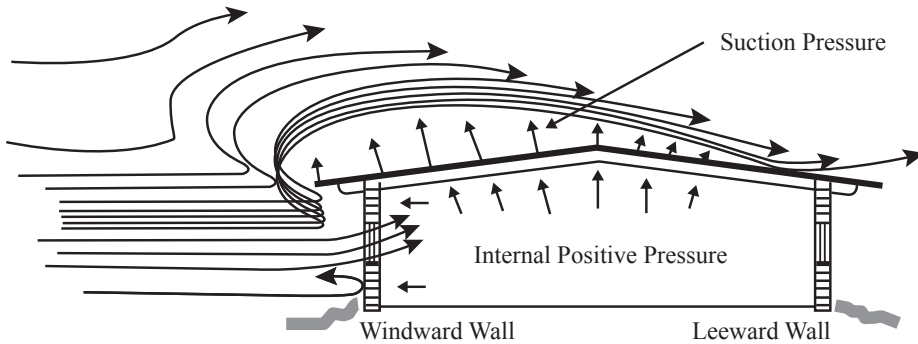


NWiR EDUCATION SERIES

METAL ROOFS: WIND UPLIFT(ING) OR NOT?

WIND UPLIFT FLOW

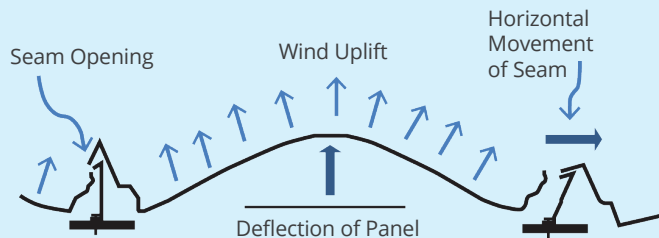


Why Wind Clamps?

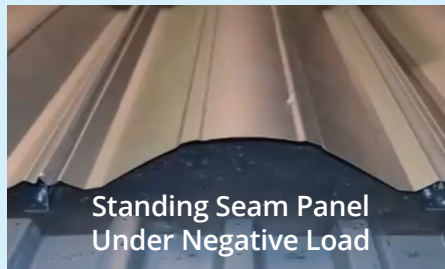
- Much more cost effective than alternative methods
- Can be retrofitted
- Allow the use of standing seam roofs in some cases where the roof alone will not meet the pressures
- Increase in allowable loads can be as much as 300 percent depending on panel profiles, gauge, and purlin spacing
- May help meet new ASCE 07-16 codes without adding costly structure
- FM Global requires their use in tropical zones

Seam Failure

Wind pressure forces the panel to deflect, and in failure mode, opens the seams and shifts the panels.



Standing Seam Panel



Standing Seam Panel Under Negative Load

BUILDING DESIGN RISK CATEGORIES

Categories	Buildings and Other Structures Represented	Ultimate Wind Speeds (Designed to withstand three-second wind gust 33 feet above ground)	
		U.S. Non-coastal Areas	U.S. Coastal Areas
Category I	Low risk to human life in the event of a failure	105 mph	170 mph
Category II	Not listed in categories 1, 3, or 4.	115 mph	180 mph
Category III	Substantial hazard to human life in the event of failure	120 mph	200 mph
Category IV	Emergency services facilities	120 mph	200 mph

For more in-depth resources, visit the Education page on the NWiR website. To watch the complete webinar visit www.NationalWomeninRoofing.com/home/education/webinars/